

The mean seasonal rainfall for the three is found to be as follows:

	Inches
1850-1877	14. 09
1877-1904	15. 33
1904-1931	14. 53

The driest winter in the entire series was that of 1862-63, with an estimated rainfall of 4.30 inches; the wettest, that of 1883-84, with a measured rainfall of 38.18 inches.

In the first of these 27-year periods there was a relatively wet series of seasons from 1851 to 1862; two disastrously dry seasons followed; then came another relatively wet series ending on June 30, 1869, and finally a dry series ending on June 30, 1877.

The individual seasonal estimates are as follows:

	Inches		Inches
1850-51	8. 60	1864-65	13. 60
1851-52	15. 30	1865-66	15. 40
1852-53	17. 20	1866-67	19. 80
1853-54	15. 50	1867-68	23. 50
1854-55	18. 00	1868-69	15. 30
1855-56	12. 60	1869-70	7. 20
1856-57	5. 90	1870-71	6. 30
1857-58	18. 50	1871-72	12. 80
1858-59	10. 20	1872-73	9. 60
1859-60	18. 60	1873-74	21. 20
1860-61	13. 70	1874-75	12. 40
1861-62	32. 00	1875-76	21. 80
1862-63	4. 50	1876-77	5. 30
1863-64	6. 20		

The author believes that the influence of the Brückner cycle and the double Wolf cycle are clearly discernible in the estimates made for the period 1850-1877, and that the results seem to forecast the early beginning of a wetter rainfall régime in this region.

BIBLIOGRAPHY

C. FITZHUGH TALMAN, in charge of library

RECENT ADDITIONS

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies:

Besson, Louis.

L'Altération du climat d'une grande ville. Paris. n. d. 34 p. figs. 23½ cm. (Ann. d'hyg., pub., indus., et soc. 9^e année. no. 8. Août 1931.)

Collens, A. E.

Hurricane statistics. n. p. 1931. 1 sheet. 33 cm.

Conrad, Victor.

Zum Klima des Semmeringgebietes. Medizinisch klimatische Aktion des Volksgesundheitsamtes in Bundesministerium für soziale Verwaltung. Mitteilung Nr. 12. Wien. 1931. 22 p. figs. 28 cm. (Zentralanst. Met. und Geodyn. Pub. Nr. 137. Beihefte zu den Jahrbüchern der Zentralanst. für Met. & Geodyn. Beiheft zu Jahrg. 1928 der Jahrbücher.)

Handbook of aeronautics; a compendium of the modern practice of aeronautical engineering . . . published under the authority of the Council of the Royal aeronautical society . . . 1st ed., 1931 . . . London. (1931. Contains bibliographies.)

International council for the study of the sea.

Rapports et procès-verbaux des réunions. v. 76. The mixing question, viewed theoretically and practically, together with a consideration of internal waves. Reports of the proceedings of a special meeting held on March 27, 1931, at Copenhagen. Copenhagen. 1931. 62 p. figs. 27 cm.

Krauss, J., & Meldau, H.

Wetter- und Meereskunde für Seefahrer. Zugleich zweite Auflage von J. Krauss, Grundzüge der maritimen Meteorologie und Ozeanographie. Berlin. 1931. iv, 152 p. figs. 24 cm.

Linke, F.

Meteorologisches Taschenbuch. Erste Ausgabe. Unter Mitarbeit von C. Kassner, K. Keil, E. Kleinschmidt, K. Knoch und G. Stüve. Leipzig. 1931. xi, 316 p. figs. 21½ cm.

Loewy, A.

Über Klimatophysiologie. Leipzig. 1931. 77 p. illus. 21½ cm.

Magarinos Torres, F. E.

Metodos de previsão das enchentes nos rios. n. p. 1930. 18 p. 33½ cm. [Manifolded.]

Shiel, I. J. Wymore.

Correlation of long-wave radio field intensity with passage of storms. p. 1675-1683. figs. 23 cm. (Repr.: Proc. Inst. radio engin., v. 19, no. 9, Sept., 1931.)

SOLAR OBSERVATIONS

SOLAR RADIATION MEASUREMENTS DURING NOVEMBER, 1931

By HERBERT H. KIMBALL, in charge, solar radiation investigations

For a description of instruments employed and their exposures, the reader is referred to the January, 1931, REVIEW, page 41.

Table 1 shows that solar radiation intensities averaged above the normal values for November at Madison and slightly below normal at Washington and Lincoln

Table 2 shows an excess in the total solar radiation received on a horizontal surface at Chicago, New York, and Fresno as compared with November normals for the respective stations; close to normal at Pittsburgh, La

Jolla, and Miami; and a deficit at Washington, Madison, Lincoln, Gainesville, and Twin Falls.

Skylight polarization measurements made on 4 days at Washington give 60 for the mean percentage of polarization, with a maximum of 66 per cent on the twenty-fourth. At Madison, polarization measurements made on 4 days give a mean of 72 per cent with a maximum of 75 per cent on the fifth. These are above the corresponding averages for each station in November.

Data received too late to be included in Table 2 for October.

Gainesville, Fla., weeks beginning, October..	1	8	15	22
Weekly averages of solar radiation, gr. cal.				
min. cm ²	307	308	403	354
Departures from normal values.....	-92	-88	-8	-46